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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/975,271	10/10/2001	Edward L. Witzke	SD-6778/96430	8861
20567	7590	12/29/2005	EXAMINER	
SANDIA CORPORATION P O BOX 5800 MS-0161 ALBUQUERQUE, NM 87185-0161			MARCELO, MELVIN C	
			ART UNIT	PAPER NUMBER
			2662	

DATE MAILED: 12/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/975,271

Applicant(s)

WITZKE ET AL.

Examiner

Melvin Marcelo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2-15 and 17-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-12, 14, 15, 17-24, 26 and 27 is/are allowed.
- 6) ☒ Claim(s) 13, 25 and 28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 13 and 25 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Tuttle et al. (US 5,621,913 A).

With respect to the claims below, references to the prior art appear in parenthesis.

#### Claims

13. *A localized wireless communication system (Tuttle, “chip to chip communication” is localized) for communication between a plurality of circuit components (Circuit components are the chips shown on Figure 2) on a circuit board (Chips located on circuit board, column 1, lines 64-67), said system comprising a transceiver locatable on each of the circuit board components (Transmitter and Receiver pair for the each of the chips are shown in Figure 3) for transmitting and receiving radio frequency communication between the circuit board components.*

25. *A method of localized wireless communication (Tuttle, “chip to chip communication” is localized) for communicating information between a plurality of circuit board components (Circuit components are the chips shown on Figure 2), the method comprising:*

*providing a transceiver for each circuit board components (T and R for each chip shown in Figure 2);*

*modulating electrical signals from each circuit board component into an RF signal for transmission by a transceiver (Transmitter includes a modulator, column 2, lines 38-40); transmitting and receiving RF signals between circuit board components with the transceivers (RF signals are transmitted and received, column 2, lines 41-45); and demodulating received RF signals from the transceivers into electrical signals for the circuit board components (Receiver includes a demodulator, column 2, lines 40-41).*

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Leggett (US 6,771,935 B1) in view of Newton's Telecom Dictionary (9<sup>th</sup> Edition, 1995) definition of "TDMA".

Leggett teaches a wireless bus (Figure 1) which functions as a radio frequency switch (column 1, lines 62-65 "digital switch"; and column 2, lines 18-31, "RF signals"). An RF transceiver chip provides the input and output signals for transmitting and receiving on the wireless bus (column 2, lines 18-31). Leggett does not teach that the signals received at the input port and transmitted at the output port of the RF chip are addressed signals (Figure 1, the RF chip 16 has ports for distributing the signals to and from other integrated circuit chips 18 with each card 12).

However, Leggett suggest using the TDMA protocol for each card (column 2, lines 38-52). The TDMA protocol as defined in Newton's Telecom Dictionary includes the transmission of packets, which are signals with address information (destination, source). A skilled artisan

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would have been motivated by Leggett's suggestion to use the TDMA protocol in the wireless bus system. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to transmit and receive addressed signals in Leggett for the reason that the TDMA protocol includes signals transmitted as packets which are signals with address information.

With respect to the claims below, references to the prior art appear in parenthesis.

28. *A radio frequency switch (Leggett, wireless bus functions as a digital switch, column 1, lines 62-65) comprising:*

*at least one radio frequency transmitter (Transmitter on RF transceiver chip 16, column 2, lines 18-31) for transmitting addressed input signals (TDMA protocol uses packets which are addressed signals) received at input ports (RF transceiver chip 16 receives signals from other integrated circuit chips 18 at its input ports); and*

*at least one addressed radio frequency receiver (Receiver on RF transceiver chip 16) for receiving the transmitted input signals according to output port address (TDMA protocol uses packets which are addressed signals, wherein the RF transceiver chip 16 would have distributed the received signals to the other integrated circuit chips 18 at its output ports).*

#### ***Allowable Subject Matter***

5. The indicated allowability of claims 13, 25 and 28 is withdrawn in view of the newly discovered reference(s) to Tuttle et al. and Leggett.

6. Claims 2-12, 14, 15, 17-24, 26 and 27 are allowed.

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7. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record fails to anticipate or make obvious the use of ATM on the RF interconnect for inter-chip and intra-chip communication.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melvin Marcelo whose telephone number is 571-272-3125. The examiner can normally be reached on Mon-Fri 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 571-272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Melvin Marcelo  
Primary Examiner  
Art Unit 2662

December 27, 2005